

CUPoN

Columbia University Postdoc Newsletter

Featuring

Career Focus: An interview with Asst. Prof. Rebecca Haeusler Ph.D. on choosing academia as a career option.

Book Review: Polishing your research identity and cover letter for tenure-track faculty applications.

Also includes:

Communicating research to a non-technical audience

Research center highlights

News on Columbia University Postdoctoral Society (CUPS)

In Your Own Words

News from Office of Postdoctoral Affairs (OPA)

Not to be missed in NY

Academic/professional meetings



CONTENTS

<u>Columbia University Postdoctoral Society</u>	
<u>1</u>	
<u>Random Wisdom and Fun</u>	
<u>2</u>	
<u>Editor's Opinion</u>	
<u>3</u>	
<u>Career Focus</u>	
<u>4</u>	
<u>Recent Awards and Honors</u>	
<u>6</u>	
<u>Postdocs on the move</u>	
<u>6</u>	
<u>Research Center Highlights</u>	
<u>7</u>	
<u>Book Review</u>	
<u>8</u>	
<u>News & Events from the Office of Postdoctoral Affairs</u>	
<u>10</u>	
<u>Recently Published</u>	
<u>11</u>	
<u>Spring/Summer Programs from the OPA</u>	
<u>11</u>	
<u>Communicating Research to a Non-technical Audience</u>	
<u>12</u>	
<u>Welcome to Columbia (New Postdocs)</u>	
<u>13</u>	
<u>In Your Own words</u>	
<u>14</u>	
<u>Not to be missed in NYC for spring/Summer 2016</u>	
<u>15</u>	
<u>Funding Opportunities</u>	
<u>16</u>	
<u>Future Academic/Professional Meetings</u>	
<u>17</u>	
<u>Events in NYC</u>	
<u>Back cover</u>	

Columbia University Postdoctoral Society (CUPS)

Dear Postdocs,

Since the last newsletter, CUPS has officially started up in full force! We have elected our executive leadership consisting of:

Co-presidents : Riyaz Maderbocus (Morningside) and Yalda Moayedí (CUMC)

Vice-president: Thomas Postler

Treasurer: Michael Stokes

Secretary: Joon Ho Ahn

We have organized three standing committees to bring together events, networking groups, and advocacy panels to serve the postdoc community at Columbia University.

Our **Networking & Community building committee** is working together to bring monthly happy hours, social interest groups coffee hours and events, tours, as well as outings starting this summer to explore this great city. So far we have started up a networking group for postdoc parents (look for Parents&Postdoc@Columbia on Facebook). If you have a group that you would like to start up, please contact us at cups_networking_community@columbia.edu. We have also scheduled our first CUPS sponsored happy hour on April 21st at Amity Hall.

The **Outreach, Communication & Advocacy group** is working hard to find ways to address your needs. We are analyzing last year's postdoc survey to find out what unique problems postdocs at Columbia need to have addressed and forming collaborations with committees to address these needs. We are putting together a postdoc website to help new postdocs navigate Columbia and to consolidate the resources that the postdoc community has to offer. We are also working with other universities in the NYC area to revive the New York Postdoc council.

The **Research & Professional Development group** is building a database of Columbia alumni who are working in industries outside of academia. The goal is to pair postdocs interested in a non-academic careers with a mentor from the industry of interest. We will also host our first professional development event this spring -- a "chalk talk" workshop for postdocs who are entering the academic job market. Finally, we are putting together professional interest groups that will provide postdocs with resources, events, and a discussion forum for individuals interested in a particular field. So far interest groups have been created for teaching and for STEM outreach, and more are on the way! If you would like to join an interest group, or have a proposal for a group you would like to see created, please contact Martha Cagliostro (mkc2154@cumc.columbia.edu).

We are actively looking for new members that are passionate about enhancing the postdoc experience at Columbia. If you are interested in joining CUPS please email Joon at (ja2250@columbia.edu). If you have other comments and concerns for CUPS, please email us at (cups_executive@columbia.edu).

Stay tuned for more events and follow us on Facebook to keep up to date!

<https://www.facebook.com/ColumbiaPostdocs/>

Yalda

Happy Hour

Sponsored by CUPS

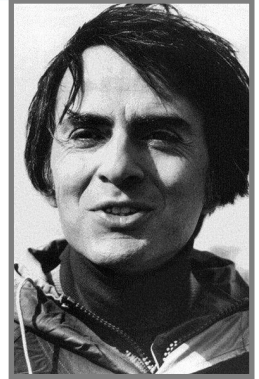
Thursday, April 21 at 5:30 PM - 8:30 PM

Amity Hall, 982 Amsterdam Ave, New York, NY 10025

Random Wisdom and Fun

"If you wish to make an apple pie from scratch, you must first invent the universe."

- Carl Sagan



Did you know...

...that the human brain takes in 11 million bits of information per second but is aware of only 40?

...that a medium-sized cumulus cloud weighs about the same as 80 elephants?

... that in an average lifetime, human skin completely replaces itself 900 times?

... that gorillas and potatoes have two chromosomes more than humans?

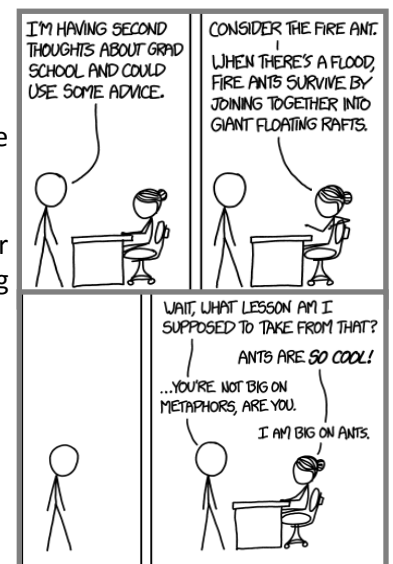
...that the strongest known creatures on Earth are gonorrhea bacteria? They can pull 100,000 times their own body weight.

Source: Huffington Post

Good with a pencil or Photoshop? Bored? Got the craving to be a contributor to the *legendary* Postdoc Newsletter?!

You have come to the right place. We are looking for cartoons drawn by postdocs for our next issue! Anything goes. Well, within reason. Until then, we'll just keep stealing from XKCD.

Interested? Shoot us an e-mail at cupostdocnewsletter@gmail.com for more information.



Editor's Opinion

Is there a method to this madness?

Recipe 1:

Place pan on stove at medium heat. Add 5 ml of olive oil. Break shell of three eggs and transfer contents to medium-sized bowl. Add two shakes each of salt and pepper. Mix well. Transfer egg mixture to pan and distribute evenly. Stir repeatedly with wooden spoon. Incubate at medium heat for 10 min. or until eggs have assumed gold-brown appearance. Consume eggs.

Recipe 2:

Scramble eggs as described previously (Cook et al., 1997, Journal of Culinary Science).

I am a terrible cook, mostly because I never bothered to practice. Recently, I have tried a few simple recipes from different sources, and I have found them to vary considerably in their usefulness. Much like the fictitious examples above, the level of detail can range from step-by-step instructions, which I can follow and thus expand my skill set, to rather minimalist information that is useless to anyone but those who already know how to cook.

Disturbingly, this latter type reminds me of the methods section of many scientific papers. Over the years, I have found myself repeatedly wanting to replicate or adapt an experiment from a cool paper, only to be stymied by a sloppy record of which antibodies were used or how materials were processed. Often the much-dreaded sentence “Experiments were essentially performed as described previously.” has started me on a hunt through multiple layers of references, which ultimately led to a dead end more than once. Such dearth of information may have been excusable before the widespread arrival of supplemental materials, when space was limited and the page counts of the main text mattered. But I cannot comprehend why this practice has survived the much-touted online revolution, while the equally unsatisfying “data not shown” has rightfully all but vanished.

This is not to say that every methods section needs to be an exhaustive manual that will provide enough information for an inexperienced summer student. But is it really too much to ask of the scientific community, including the people who do the hands-on work (that is you), P.I.s, reviewers and, yes, editors, to ensure a certain standard of information? Should it not be possible for an experienced scientist with a protocol book at her/his side to quickly and reliably replicate the results that have been claimed in an article? Reproducibility is at the very core of the scientific method, and providing a detailed account of how data were obtained should matter as much as the data themselves. This starts with you, and I hope that next time you type up a manuscript you will decide to go the extra mile and write down the clone number of that antibody; the composition of that buffer; and the temperature and time at/for which you incubated that kinase. The next postdoc will be grateful to you.

Thomas

Career Focus

Do you value independence, lifelong learning, and being at the edge of what's new and interesting in the world? Do you like being valued for your expertise, and potentially entering positions of authority and influence?

"These work-related values that are strongest in academia..." says Dr. Rebecca A. Haeusler, one of the youngest scientists at Naomi Berrie Cancer Center at Columbia University. Her laboratory, situated on the third floor of Russ-Berrie Pavilion, studies the link between diabetes and cardiovascular diseases.

In the third issue of Career Focus section, we dive into the field of academia; a career option prized by many a postdoc.

Dr. Haeusler obtained her Ph.D in Biological Chemistry from the University of Michigan. In 2007, she started her postdoctoral research at Dr. Domenico Accili's (Director, Columbia University Diabetes and Endocrinology Research Center) lab at Columbia, where she worked on projects at the interface of diabetes and atherosclerosis. She then went on to become an associate research scientist and then an assistant professor in the Department of Pathology and Cell Biology in 2014. Within the short span since becoming an assistant professor, she acquired several grants including R00 and R01 from the NIH.

When I approached Dr. Haeusler for this piece, she was very willing and enthusiastic in sharing her experience to help postdocs who desire a career in academia.

Sitharam Ramaswami (Ram): How did it all start? What made you interested in academia?

Rebecca A. Haeusler, Ph.D.: Before graduate school, I thought I wanted to work in industry. I had been working at a biotech company at that time. A couple of years into graduate school, I got bitten by the basic academic research bug-the captivating feeling of following your nose to uncover a new pathway. After my PhD, I decided to change fields pretty dramatically for my postdoc, so it was a slow and somewhat dismal start. But once things got going, I thought I would try to go for an academic career.

Ram: How did you get your job and what were your preparations for it?

Dr. Haeusler: In my 4th year as a postdoc, I applied for and was awarded a K99/R00 career transition award. I chose to delay the start of my tenure-track position as long as my K99 would let me. During that period, I worked hard to complete my last paper with my postdoc mentor, and to collect data for an R01 submission on a new (but related) topic. I also went on the job market. I had heard that you have to "know somebody" to get a good job. I didn't find this to be very true. I sent CVs to four



Dr. Rebecca A. Haeusler Ph.D.

Assistant Professor
Dept. of Pathology and
Cell Biology.

academic leaders in my field that I "knew" and who had encouraged me to apply to their institutions. One of them interviewed me and made a verbal job offer. But with the other three, nothing ever happened. Even if you "know somebody," the institution still has to have a position, space, and money to hire you. I also applied to two advertised positions, interviewed for both, and one went all the way through offer and negotiation. In the end, Columbia (where I'd already been as a postdoc) made a counter-offer. It was a very difficult decision, but in the end I couldn't turn down Columbia.

The biggest deciding factors for starting my lab at Columbia were my mentors and colleagues. The Berrie Diabetes Center is a fun, supportive, collaborative research environment, and I like the people I work with every day.

Ram: What is being an Assistant Professor like?

Dr. Haeusler: My work includes mentoring the members of my lab, analyzing data, writing, editing and peer-reviewing papers and grants, preparing and giving scientific presentations for talks or lectures, developing relationships with other scientists and collaborators, creating and maintaining our approvals (animals, radiation, controlled substances), and dealing with administrative issues (budgets, hiring, purchasing).

*.... basic academic research
bug-the captivating feeling of
following your nose to uncover
a new pathway...*

Every week, I meet with each member of my lab for at least one hour in my office, one-on-one. We go over data, experimental plans, and new ideas about the future of the project. I try to help with any problem my lab members bring to me, professional or personal. Troubleshooting experiments, figuring out how to get approved for the experiments we need to do, finding people that we trust that will help us with a new technique, authorship, etc. Every week, I also attend several standing meetings (lab meetings, research-in-progress, seminars, etc.). Then there are variable meetings or conference

calls with visiting speakers, collaborators, or colleagues. I try to keep one day of my week flexible, in order to accommodate last minute meetings and to have a solid period of time to focus on my own work. Roughly, I spend 30% of my time face-to-face with my lab members, 20% with other meetings and collaborators and about 50%, a major bulk of it, on writing, reviewing, presentations, and administrative work.

Being a Principal Investigator also involves making key decisions. The most meaningful and stressful decisions are those that determine the direction of the projects in the lab. Good ideas come easily; great ideas, less so. And great ideas that are novel, feasible and affordable and will yield interesting results are the Holy Grail.

Ram: Is there a social component to your job? How important is it?

Dr. Haeusler: Creating and maintaining good and trusting relationships with other scientists is crucial. This is sometimes easier to do if there is a social component. Spending time with someone off the books can develop a relationship to a point where you can ask him/her for help. Make no mistake; an assistant professor needs a lot of help- with feedback on ideas, grants, and papers, with new protocols, with access to equipment or resources, with lab management advice, and with invitations to conferences and other universities.

Ram: From your perspective, what are the problems you see for someone working in this field? What are the major frustrations of this job?

Dr. Haeusler: Dismal grant success rates. Also, the very slow process of manuscript submission, revisions and publication can get wearisome. Not to mention the approvals, paperwork, etc. that goes into making sure our research can proceed and succeed. There is the constant wish that the research would move faster. I also feel a responsibility for every lab member to have a great project. Ensuring their happiness and success can make the job stressful.

Ram: What is a typical career path in this field?

Dr. Haeusler: PhD student -> postdoc -> “research associate” or similar -> assistant professor -> associate professor -> full professor -> sometimes (chief/chair/center director/dean). Along the way, tenure.

*... Good ideas come easily;
great ideas, less so...*

Ram: What is your advice to postdocs interested in this career path? What particular skills or talents do they need to possess or acquire, to be effective in this career?

Dr. Haeusler: Find mentors. Get diverse opinions. Some of the key aspects to getting into a career in academia involve discovering something unique, publishing papers, having grants, and developing relationships.

Work harder and publish more (high quality) first author papers. Put a lot of thought into your future independent trajectory. It’s not about your mentor “giving you” something from his/her lab. It’s about you coming up with something new. Apply for fellowships and grants – evidence of fundability makes a difference. I find scientific career blogs at sciento-pia.org and elsewhere really helpful.

The most important skill that you need to be successful is scientific creativity. Ability to write and speak effectively are key. Good communication with lab members and colleagues are important. Being a “finisher”: just getting things done, long-term planning- try improve at all of these things.



Dr. Haeusler and her lab at Bear Mountains, NY

Dr. Haeusler is also an advocate for Women in Science. “I think there are a lot of policies and attitudes that could be changed to make things better for women in science. It’s not always possible to address the person or issue directly, but I think it helps to talk about what we’ve seen or heard, and make people aware of the impact of those things.” she says. She also stresses on the importance of having a good support system and a cordial work atmosphere for success. “Being within a tight-knit research center, I greatly value my superiors, peers, and their lab members. We hold joint meetings, frequently consult each other, and openly share our unpublished work and ideas. This is invaluable.”

We hope you like our Career Focus section. If there are any specific career options that you would like us to cover in the forthcoming issues, please feel free to write to us at cupostdocnewsletter@gmail.com.

Recent Awards and Honors

Francisco J. R. Ruiz, PhD, a postdoc in the Data Science Institute was awarded a 3 year Marie Curie fellowship from the European Commission to conduct a research project on machine learning techniques applied to health care data in collaboration with Columbia University and the University of Cambridge

Shauna Downs, PhD, a postdoc in the Institute of Human Nutrition, recently was awarded the New York Academy of Sciences' Sackler Institute for Nutrition Science early career investigator research grant, which provides seed funding to support early-stage work with the potential to impact human nutrition and health.

Postdocs on the move

Shujuan Tao, PhD, recently joined Pfizer Inc. as a Senior Scientist in the Vaccine Research and Development Department, after having completed her postdoc training in the Department of Biological Sciences. In her current position, she develops analytical assays to support characterization, stability and release testing of vaccine candidates for early stage development.



Mark Brenckle, PhD, recently became a data scientist with Live.xyz, a live mapping startup located in SOHO, after completing his postdoctoral training in the Department of Electrical Engineering. In his current position he uses statistics and machine learning to help clean and quantify active map signals

Roxanne Dutia, PhD RD, recently joined Ferring Pharmaceuticals, Inc. as a Senior Manager of Medical Affairs, after completing her postdoctoral training in the Department of Medicine and serving as a Lecturer in the Institute of Human Nutrition. In her current role she manages scientific publications across multiple therapeutic areas.



Kelly Rilett, PhD, recently joined BGB Group as a Medical Writer, after completing her postdoctoral training in the Department of Pathology. In her current position, she uses her background in a variety of medical sciences to communicate information about immuno-oncology medications.

Congratulations!!!

Research Center Highlights

The Mahoney-Keck Center for Brain and Behavior Research

Being one of the world's top academic and medical centers, Columbia University strives to provide a good institutional environment for academic research. One such venue is the Mahoney-Keck Center for Brain and Behavior Research, which was established (in 2000) to bring computational, systems and cognitive neuroscientists together. The center is headed by Dr. Goldberg, who is a past president of the Society for Neuroscience (SFN) and a member of the National Academy of Sciences. He is a leading scientist in visual neuroscience, including attention, environmental saliency and related action selection, and oculomotor neurophysiology. Dr. Goldberg expects and fosters an all-rounded scientific and professional growth environment. We asked him a few questions.

Q1: What is your vision for the center?

Dr. Goldberg: The goal of the center is to use single and multiple single-unit recordings in monkeys, and psychophysics in humans and monkeys to understand information processing in the primate (human and nonhuman) brain. The underlying assumption of the Center is that the brain is a machine, and ultimately it should be able to write a statistical physics of human behavior.

Q2: What has been challenging?

Dr. Goldberg: Setting up the center, recruiting some of its members, keeping everyone happy, and dealing with the multiple bureaucracies.

Q3: What is in its future? Moving to the new building, etc.

Dr. Goldberg: The Center will join the Zimmerman Mind Brain and Behavior Institute in the Manhattanville Campus, although it may keep some space in the New York State Psychiatric Institute. It may end up like Radcliffe, a fond memory.



The Mahoney center focuses on researching how complex human behavior is generated and maintained, or how it goes abnormal. As articulated by one of Columbia's Nobel Prize neuroscientists, Dr. Eric Kandell, "Ultimately, with studies at the center, we would hope to uncover mechanisms underlying human disease and cognitive disorders including schizophrenia, Parkinson's disease, age-related memory loss, and attention disorders of childhood." (Source: <http://www.columbia.edu/cu/news/00/03/mahoney.html>).

The investigators at the Mahoney center are: Dr. Michael E. Goldberg, Dr. Martin Bromberg-Martin (dopaminergic mechanisms), Dr. Aniruddha Das (mechanisms of early vision in the primary visual cortex), Dr. Jackie Gottlieb (learning, reasoning and decision making), Dr. Vincent Ferrera (visual mechanisms in extrastriate and frontal cortices), Dr. Daniel Salzman (neural substrates of emotion), and Dr. Ning Qian (computational and psychophysical studies of neural systems).

The center fosters a very collaborative environment where bench area for routine equipment maintenance, experiment preparation and building in-house instrumentations, sound-proof neurophysiological recording booths with behavior, neurological response recording and experiment presentation equipment and software are routinely shared. The center is a part of the Department of Neuroscience at Columbia University and is located on the fifth floor of the New York State Psychiatric Institute's Kolb Annex building on West 168th Street, which hosts a vivarium with two fully equipped sterile surgery suites, a fully staffed veterinary support team, and a necropsy room. The center has access to a full instrumentation shop with two dedicated machinists who design and build custom and routine equipment ranging from implants to primate chairs. Members also have access to MRI facilities at NYSPI and Columbia University, both of which have custom coils for primate structural imaging.

Overall, the center uniquely positions its members and collaborators to do meaningful work and help them become successful independent researchers.

We thank Dr. Goldberg for answering our questions and sharing his vision for the center.

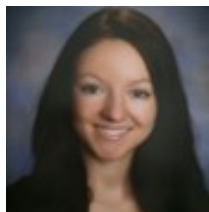
<http://columbiapsychiatry.org/research/centers/mahoney-center>

Mulugeta & Thomas

News & Events from the Office of Postdoctoral Affairs (OPA)

In case you missed it, OPA had new staff members join the office in late 2015 and early 2016, Ericka Peterson and Amanda Kelly.

Ericka Peterson, PhD, was brought on as OPA's first Assistant Director. Dr. Peterson is a domestically and internationally trained Neuroscientist. She spent a number of years in Pharmaceutical Advertising/Marketing and Medical Communications following her postdoc training before transitioning to her current position.



Amanda Kelly was brought on as OPA's new Coordinator. Amanda has a background in communications, public relations, and event planning and a strong interest in career development programming.



In the evening of Friday, April 1st, OPA hosted its first highly successful BioPharma and Beyond networking event on the medical campus. The purpose of the event was for Postdocs to meet and learn from industry professionals who had transitioned to careers in the BioPharma Industry or in an industry working directly with BioPharma following their PhD or postdoctoral training. Many of the invited industry representatives were former Columbia postdocs and featured over 25 professionals from Pharmaceutical research and development positions, Medical Affairs specialists, Medical Science Liaisons, as well as Medical Communications and Pharmaceutical Brand Strategy and Marketing Professionals. Over 100 postdocs attended the networking event which ran from 6-

8:30 PM and included a wide-selection of appetizers and drinks.



For many postdocs the event provided an opportunity to connect with professionals working for companies with which they are seeking current or future employment. These are the type of networking connections that often play

an integral role during a job search. For other postdocs the event served as a career exploration event. Numerous postdocs informed OPA staff during the event that they had learned about career options previously unfamiliar to them and were now interested in exploring further. All in all, the event was a huge success with a large turnout of postdocs and will serve as a template for future networking events OPA plans to organize in the coming months and years ahead.

If you missed the event, don't fret, as OPA will run this same networking event again, in the spring of 2017. In the meantime, in Fall 2016, OPA will be running a networking event with representatives from energy and technology companies, engineering firms, as well as data science teams.

Representatives from the following companies attended the April 1st event:

Acorda Therapeutics
Adelphi Communications
AXON Communications
BGB New York
Biogelx
BonBouton.co
Bristol-Myers Squibb

Enzo Life Sciences, Inc.
FCB Health
Flashpoint Medica
Grey Health Group
Harlem Biospace
Infusion
Intralytix, Inc
Johnson & Johnson

Merck and Co.
Pfizer
Pfizer Oncology
Precept Medical Communications
Regeneron Genetics Center
The Scienomics Group
Schrödinger
Siemens
Teva Pharmaceuticals

Recently Published

Congratulations Elliot and the team!

“The ictal wavefront is the source of epileptiform discharges in human spontaneous seizures” in *Nature Communications* by Elliot Smith, Jyunyou Liou, Tyler Davis, Edward Merricks, Spencer Kellis, Shennan Weiss, Bradley Greger, Paul House, Guy McKhann, Robert Goodman, Ronald Emerson, Lisa Bateman, Andrew Trevelyan, and Catherine Schevon.

Seizures are storms of electrical activity in the brain that are made up of large, repetitive discharges. This article shows that the large, electrical discharges that occur during seizures arise from the edge of the seizing brain tissue and propagate away from that edge as rapidly propagating traveling waves. Since the edge of the seizure is the source of the seizure activity, its absence could underlie the cessation of seizure activity. This paper also offers and tests a computational model of the processes leading a seizure to stop itself. Together these results show the origin and structure of human seizure activity and provides clues about how to stop seizures earlier. This work was carried out in the lab of Dr. Catherine Schevon MD, PhD who is a trained epileptologist focusing on high resolution electrical recordings of spontaneous seizures in human patients that are undergoing monitoring for surgical treatment of their epilepsy.

Elliot Smith

Spring/Summer programs from OPA

Fundamentals of Teaching Course: 10 session course runs from April through mid-June covering topics such as how students learn, effective teaching strategies, teaching philosophies, and course design and classroom management. <http://bit.ly/postdocs-teaching>

STEM Outreach Colloquium: 5 postdocs will deliver brief presentations on their research to a group of over 100 NYC area high school students and science teachers. Following the presentations, a networking event will follow in which high school students will be looking to speak with graduate students and postdocs in attendance with the goals of learning what it is like being a scientist and to possibly identify career and research mentors for summer research opportunities. More details will be released in the forthcoming weekly digests.

NIH K99/R00 Informational Panel: This panel session taking place on CUMC at noon on May 19th will feature an overview of the K99/R00 award followed by a panel session with current K99/R00 awardees at Columbia University. More details will be released in the forthcoming weekly digests.

Transitioning to Research Independence: This 10 session short course for postdocs will take place from June through August, and will be focused on preparing for a faculty career and provide insights into scientific management. <http://tinyurl.com/ResearchIndependence>

Rory Flinn

Underrepresented minority and LGBTQIA groups for postdocs

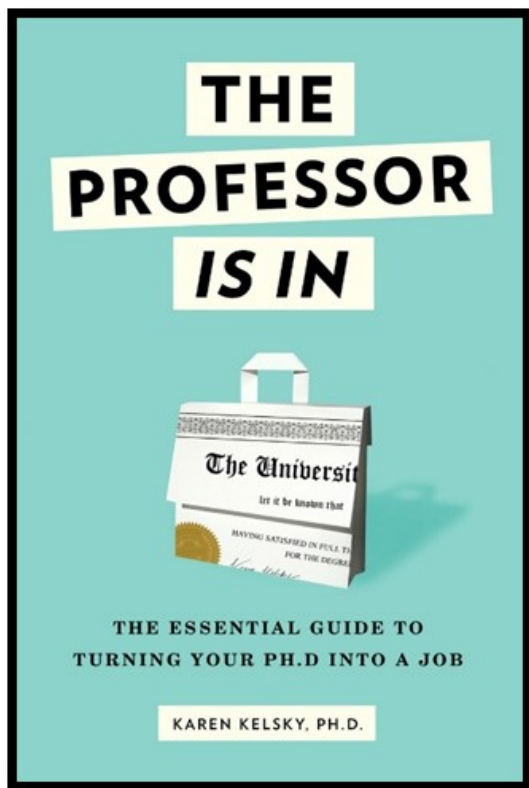
OPA is dedicated to promoting an inclusive training environment for postdocs at Columbia. With this in mind, OPA would like to announce the formation of two new affinity groups, one for underrepresented minority (URM) postdocs and another for LGBTQIA postdocs. In the past few weeks OPA hosted two meet and greet luncheons for postdocs interested in participating in these affinity groups. During these luncheons we initiated a conversation with attendees on how OPA might be able to best address their needs, with our goal being to develop new diversity and inclusion initiatives, resources, and programming. For more information on joining and learning more about them, email Rory Flinn Ph.D , Director of OPA at: rory.flinn@columbia.edu

Book Review

Polishing your research identity and cover letter for tenure-track faculty applications.

As postdoctoral researchers, the majority of us are continuing our training with the goal of obtaining a research tenure-track faculty position. While the idea of preparing, applying, and interviewing for a research faculty position is daunting and oftentimes nauseating, the best way to keep going is to make sure you are mentally prepared and aware of the process.

As such, I recommend reading *The Professor Is In: The Essential Guide To Turning Your Ph.D. Into a Job* by Karen Kelsky, PhD. Dr. Kelsky spent 15 years at a R1 institution as both a tenured professor in anthropology and department head. She now coaches PhD students, postdocs, and adjunct faculty toward securing tenure-track research faculty positions. She provides pragmatic advice on preparing for an academic position and excellent, poignant advice and examples for faculty application package materials.



One of the major themes of the book is developing a unique and fundable research identity. We need to start viewing our faculty application and interviewing time much like a political campaign. It is necessary to have a polished platform with clear ideas for which we never falter. And, we need the faculty committee on our side and supporting us every step of the way. In this book, I found some very helpful information for preparing these ideas to ensure all of the application materials and answers to interview questions support the research goal. For starters, I would recommend filling in the following information that is provided by Dr. Kelsky in her book to get started thinking about your research goals and career on the tenure track. One caveat, Dr. Kelsky is an anthropologist and thus has extensive experience in the hiring of faculty in the humanities. While this means some of the points below may not be as important for all disciplines, I feel this will help any candidate articulate clear ideas of their role in a large academic sense and overall goals for their research lab.

Platform for Faculty Job Application Package (P.62-63)

Area Focus: specialty within your department or school

Topical Focus: project focuses, niche within specific field

Disciplinary Identity/Commitment: discuss methods/theories use in research

Research Program: major projects and specific journal targets

Pedagogical Commitments (Specialty): graduate courses, upper-level courses with smaller number of students

Pedagogical Commitments (Department): undergraduate courses, introductory-level courses with large amount of students

Campus/Interdisciplinary Orientation: mention potential areas of collaboration across disciplines

Service Commitments: undergraduate training, graduate training, touch base on any particular service goals that the department focuses on (e.g. coding for girls in middle and high school)

Further, Dr. Kelsky devotes an entire chapter (Ch. 22) to discussing the importance of the cover letter. Specifically, she details multiple ways in which applicants wrongfully present material in their cover letter. Some of the points that resonated with me include “presenting yourself as a student and not a colleague” and make sure “you are telling, not showing”. This is a great reference chapter for those tailoring a cover letter for academic positions. I also came across a service Dr. Kelsky provides online, “The Art of the Cover Letter – a 10 module, self-guided online course from Dr. Karen Kelsky (<http://reachthenextlevel.net/buy-aocl/>)” for anyone who is interested.

Further, Dr. Kelsky devotes an entire chapter (Ch. 22) to discussing the importance of the cover letter. Specifically, she details multiple ways in which applicants wrongfully present material in their cover letter. Some of the points that resonated with me include “presenting yourself as a student and not a colleague” and make sure “you are telling, not showing”. This is a great reference chapter for those tailoring a cover letter for academic positions. I also came across a service Dr. Kelsky provides online, “The Art of the Cover Letter – a 10 module, self-guided online course from Dr. Karen Kelsky (<http://reachthenextlevel.net/buy-aocl/>)” for anyone who is interested.

On a similar note, I recently reached out to my PhD advisor for personal advice in preparing to apply for a tenure-track position. As they are currently going through a faculty candidate search at the institution where I completed my PhD, she had fresh advice to give.

1.The cover letter is key. This document can make or break your application and chance for an interview. Here are some helpful points:

- a) Sell your story – make sure each step of your path and your future directions all culminate into a cohesive plan/ goal
- b) Make sure your story and goal match what the university is looking for in a candidate. I was given the example of fundamental vs. translation research. If the department focuses on either, make sure you tailor your research plan to highlight this. Mind you, this is dependent on the discipline.
- c) Make it unique. Each of us has skills and qualities that set us apart. This needs to be clear. If you developed a technique that revolutionizes a specific field (or just makes experiments less time consuming and more reproducible) make this clear. And detail all of the PIs with which you have worked. Name dropping is the “name of the game”.
- d) If possible, explain gaps in research productivity. Here I am specifically referring to a low number of first author publications. You may be able to get around this by solely listing the total number of publications for which you contributed and co-authored, explaining the circumstances (e.g. establishing a new lab, developing a new technology), or listing other indicators of productivity (e.g. patent application, book chapter, etc.).
- e) NEED TO SELL YOURSELF AS AN ENTIRE PACKAGE

2.Super polished research proposal

- a) The proposal needs to be very polished – comparable to a grant proposal. You want to make an impression of competence and confidence in your area of research. Clear schematic(s) illustrating the goal of your research program are important. My advisor mentioned she still remembers the excellent figures from a faculty candidate from 3 years ago.
- b) Discuss how you are uniquely trained and prepared to conduct this research.
- c) Feasible and fundable
- d) NIH agencies for which you plan to apply
- e) With whom in the department you foresee working and in what facet
- f) Don’t necessarily need data for planned future studies/directions but need to show evidence that you have the training you need. Here you can again name drop with the PIs under whom you have trained to become an expert.
- g) What is the new research niche you are establishing? This entails ensuring you aren’t continuing your advisors work, you are addressing novel research questions, and you can base your entire career around the proposed work.

3. Overarching Points

- a) Is the research fundable? This is tough. You have to balance novelty and research that pushes the boundaries with evidence that you will get timely results and that funding agencies care.
- b) Make sure proposed research is attached to a funding initiative. For most of us, this means making sure the research links to an NIH initiative or current program announcement or request for applications.

Continued on Page:15

Communicating Research to a Non-technical Audience

Recently, I (Ericka Peterson, PhD – Assistant Director Office of Postdoctoral Affairs) conducted a talk on “Communicating Research to the Non-Technical Audience” as part of the OPA’s Communication Series. Here I will summarize the top 5 takeaways from the session.

#1 By far, postdocs showed the most interest in this table, which displays different terms and how the meaning changes between the public and scientist. It also suggests better choices to replace the specific term.

According to the American Association for the Advancement of Science (AAAS), there are 4 keys to effective communication (<http://www.aaas.org/pes/communication-101-communication-basics-scientists-and-engineers>)

#2 Define your audience

Could it be scientists from another field? Non-scientists? Journalists? Foundation representatives? Industry board members? Policymakers/Politicians? Children? Potential employers?

Before you even begin creating your communication, you need to identify the audience. What will they be interested in? What might they already know about the topic? What questions might they ask? How will you keep them engaged? Will any tensions arise?

#3 Chose the right words

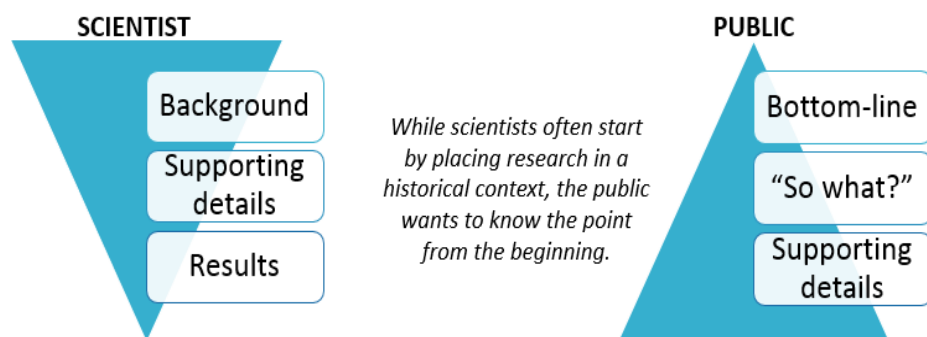
As described above, the meaning of a word can vary greatly between scientists and the public. The AAAS recommends the following:

Experiment: Ask friends, families and colleagues who do not hold the same background as you to listen to your communication with the appropriate language changes applied. Learn from their feedback!

Learn from Others: Do you know others in your field who successfully communicate their work to public audiences? Follow other successful science communicators in your field to help expand the terms and techniques you can use that work with public audiences. Check out public events that demonstrate communication with audiences holding varied backgrounds.

Trial and Error: Learn from your mistakes and take note of them – literally write them down. Often you will be able to see clearly when you have lost the audience on a term or concept. Try to adjust your language for the next time.

Terms that have different meanings for scientists and the public		
Scientific term	Public meaning	Better choice
enhance	improve	intensify, increase
aerosol	spray can	tiny atmospheric particle
positive trend	good trend	upward trend
positive feedback	good response, praise	vicious cycle, self-reinforcing cycle
theory	hunch, speculation	scientific understanding
uncertainty	ignorance	range
error	mistake, wrong, incorrect	difference from exact true number
bias	distortion, political motive	offset from an observation
sign	indication, astrological sign	plus or minus sign
values	ethics, monetary value	numbers, quantity
manipulation	illicit tampering	scientific data processing
scheme	devious plot	systematic plan
anomaly	abnormal occurrence	change from long-term average



#4 Chose appropriate supporting information and visualizations

We love graphs! We love images! We love graphs and images with loads of detail! The public does not. Graphs and images are often overcomplicated and confusing and we spend too much time trying to explain them. Consider if a visual is even necessary and if a story or analogy would more clearly illustrate your message.

Reference: *Physics Today* 64(10), 48 (2011); doi: 10.1063/PT.3.1296.

#5 Develop your message in 3 points

Focus on why the audience should care. Answer their “so what?” question first and then give the supporting details later. The AAAS suggests sticking to three key things for your audience to remember. For example, three results, three potential applications, or three reasons why your work is important. I encourage you to visit the AAAS website. It has a wealth of information including relevant examples and videos.

Happy communicating!

Erica Peterson

Welcome to Columbia

The Office of Postdoctoral Affairs (OPA) welcomes new postdocs at the University every other month by holding a new postdoc orientation with a postdoc coffee hour immediately following. The next orientation will take place on Thursday, April 21st from 4:30-5:30 PM on the Morningside campus. RSVP for the orientation by sending OPA an email at postdocaffairs@columbia.edu with the subject line ‘orientation’. **We welcome to the University, the following new postdocs who have joined us over the last two months:**

Agric & Food Security Ctr, Christine Sprunger	Immunology, Nato Teteloshvili
Agric & Food Security Ctr, Kathryn Fiorella	Industrial Engr & OR, Babak Haji
Biochem & MolecBiophysics, Ekaterina Gushchanskaia	Infectious Disease, Fabrizio Angius
Biochem & MolecBiophysics, Hans Koss	Integrative Neurosciences, Laureline Logiacco
Biochem & MolecBiophysics, Jose Canovas Schalchli	IRI General, Markus Christian Enenkel
Biochem & MolecBiophysics, Zhen Gong	Microbiology, Lauren Vaughn
Biology & Paleo Environ, Gwenn M.M. Hennon	Molecular Medicine, Arif Yurdagül, Jr.
Biology Research, Konstanze Schiessl	Neuroscience, Abhishek Sahasrabudhe
Biology Research, Molly Schumer	Neuroscience, Bianca Marlin
Biomedical Engineering, Hesam Parsa	Neuroscience, Eric Buss
Biomedical Engineering, Ioannis Delis	Neuroscience, Wenke Li
Biomedical Engineering, Mark Burgess	Ocean and Climate Physics, Naftali Cohen
Biomedical Engineering, Sahishnu Patel	Ocean and Climate Physics, Nathan Steiger
Biomedical Engineering, Zakary Singer	Ophthalmology, Jeroen Bastiaans
Biostatistics, Zhonghua Liu	Ophthalmology, Kathleen Oktavec
Cardiology, Hanrui Zhang	Orthopedic Surgery, FNU Akshay
Cardiology, Nishar Ahmed Kherada	Orthopedic Surgery, William Hotchkiss
Cardiology, Xuan Zhang	Orthopedic Surgery, Zeeshan Sardar
Center for Radiological Rsch, Qing Zhou	Pathology, Georgia Ntermentzaki
Chemistry Research, Bijoy Desai	Pathology, Qiongming Liu
Chemistry Research, Julien Pomarole	Periodontics, Jungeun Baik
Chemistry Research, Juraj Galeta	Physics Research, Dante Kennes
Chemistry Research, Raul Hernandez Sanchez	Physics Research, Matthew Yankowitz
CISE, Robert Paul Polster	Psychology Research, Noga Cohen
DCAP, Chiaying Wei	Pulmonary, Debashish Sahay
DCAP, Katie Davis	Pulmonary, George Juan
Digestive & Liver Diseases, Giovanni Valenti	Pulmonary, Imnett Habtes
Digestive & Liver Diseases, Haibo Liu	Research, Fatou Amar
Digestive & Liver Diseases, Ryota Takahashi	Research, Thomas Hof
E3B Research, Ching-I Huang	Research, Wassim Bou-Zeid
Earth & Environmental Engr, Xiang Xu	Saltzman Inst War Peace St, Elad Popovich
Environment Health Science, Sen Pei	Social Intervention Group, Anindita Dasgupta
Experimental Therapeutics, Yuxuan Liu	Statistics Research, Johannes Friedrich
Gender Sexuality Health, Alissa Davis	Statistics Research, Mandev Gill
Gender Sexuality Health, Jack Tocco	Stem Cell General, Fuun Kawano
Genetics & Development, Rebecca Delventhal	Surgery Other Operation, Philipp Franck
Geochemistry, Megan Newcombe	Surgery Pediatrics, Arunachalam Thenappan
ICG Gautier Lab, Crystal Waters	Surgery Pediatrics, Shunpel Okochi
	Systems Biology, Carlotta Ronda

In Your Own Words

My impression is that most people outside academia think of us scientists as people doing something beneficial to the world and our society; that we are making important discoveries, inventing new technology and curing diseases. The only concern people could have against research is that it is very high-priced. Performing the experiments we do and buying all the equipment that we rely on, cost a lot. Very often it is via aid from the government, meaning that the man on the street contributes to our research with his tax money. Still, people very rarely, if ever, question our mission and dedication to do science.

Last Friday when I came into lab, I found out that my neurons that I culture in flasks were contaminated. I also developed a blot that showed my knock down did not work. On top of that, nobody had emptied the trashcan in the common lab area. An enormous fire a.k.a rage started in me; consisting of frustration, bitterness, madness and other not so flattering feelings. My lab mates were not too pleased with me and the situation. But I tried to control myself, and tried to avoid causing a big explosion.

I took the elevator down to the first floor, where I was going to buy some afternoon snacks and a drink at the cafeteria. I had a strong craving for a non sweet chai tea. It turned out, that the only kind they have contained sugar. "WHAT DO YOU MEAN!! ONLY WITH SUGAR!!! IN SWEDEN WE ALWAYS..." I said as sweet as the sugar is, non-sweet was now my attitude to the staff at the cafeteria. People in the line behind me, were actually starring at me wondering what was going on. Had I totally lost my mind? Was I a patient from another part of the hospital that had escaped. Or was I on some sort of drugs. I loudly talked to the cafeteria staff and gave them specific instructions about my non-sweet chai tea, that they in the end manage to fulfill. I grabbed my tea and walked back to lab still with a burning rage inside of me.

Later that day I walked to the supermarket around the corner from Columbia University to buy some dinner. I would not say that my behavior from the afternoon cafeteria incident was repeated. N either can I say that my attitude to the super market cashier was super charming, when she told me she only had single dollar change on my \$20 bill.



With this, I would like to make an official statement that I, most of the time, am a well behaved 32 years old postdoc from Sweden. However, there are moments when my frustration and disappointment goes out of control as it did that Friday. And after talking to scientists from other labs, I realize this is a rather common feeling. You try an experiment for around 10 times before it works. Or when another time, you are just going to run the last set of samples to make the graph significant, you can not repeat the trend. This is what scientists are exposed to every day. Who would not, now and then, get a mental breakdown from this? Otherwise, you would need to have a heart made of steel.

I am still very convinced that us scientists are doing an important and great job trying to understand the world around us. But I am also rather happy that the man on the street does not know how much nicer it would have been that he do not have to face us, frustrated scientists, who scream for no reason and are rude. Maybe then he would question why so much money went into research.

Anne C. Beskow

Science and Rocks: Weekly Postdoc Rock Climbing

In the interest of science, health, and rock climbing, Evan, a postdoc from Dept. of Chemistry, is putting together a weekly rock-climbing session. Here the participants will learn agility, improve strength, and test their limits. For now it is on Sundays from 7 - 10pm at The Cliffs at LIC (11-11 44th Dr, Long Island City).

This is for anyone who is interested in climbing. All levels welcome! Be sure to bring gym clothing and a lock (for your locker). Gear rentals are \$12 and the entrance fee is \$28.

For further questions contact Evan Arthur at eja2136@columbia.edu



Book Review... continued

c) Make sure it is feasible and you can base a career around the research goals you are proposing. This will require feed back and impressions from multiple current faculty members.

d) Again make sure your application hits on the current focus and direction of the department. For example, if you are doing fundamental research and don't articulate how this can be translated then you won't be getting interviews at departments that are looking for translational research.

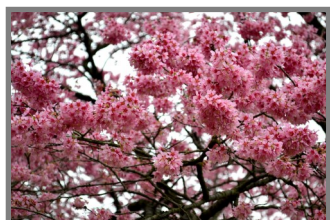
Overall, I STRONGLY recommend *The Professor Is In* as a guide for anyone preparing to apply for a research or teaching job in academia. While I found the information and advice Dr. Kelsky provides regarding the materials for the application package helpful, the templates and questions provided are well geared to help applicants become mentally aware and prepared to think as a potential faculty about their research career which is invaluable.

Best of luck!

Jennifer

Not to be missed in NY during Spring/Summer 2016

Spring and summer time in the city are hard to beat! Here are a few ways to enjoy the weather and scenery:



There is a Cherry Blossom festival at Brooklyn botanical gardens Saturday April 30th– Sunday May 1st from 10am– 6pm, both days. Here is the link . Check it out! <http://www.bbg.org/collections/cherries> Photo by Elizabeth Peters.

Smorgasburg A Brooklyn Flea Food Market as it's described online, this weekly event brings together food from restaurants throughout the city. If you enjoy eating doughnuts, ramen burgers, and satay in the same meal, you will love this event. I would recommend getting there before noon before it gets too crowded.



Saturdays in Williamsburg starting April 2nd Sundays in Prospect Park starting April 3rd

Summer Stage in Central Park Enjoy outdoor concerts in the park throughout the summer. Some are even free! Check out more at <http://www.cityparksfoundation.org/summerstage/>

Free Movie Screenings in Central Park and Bryant Park Bring a blanket, picnic meal, and a friend to enjoy these free film screenings. Central Park screens a full week of movies in August. These screenings occur throughout the summer in Bryant Park. As the summer nears, check out nycgovparks.org for other free screenings throughout the city.

For anyone interested in FREE and EXCITING events in the city, subscribe to *The Skint*. They send out a daily newsletter highlighting cheap events that most people are otherwise unaware. Enjoy!

Jennifer

Funding Opportunities

Postdoctoral fellowships are available from a variety of sources and across nearly every discipline. Please visit <http://www.postdocs.columbia.edu/funding.html> to view resources available to you that will aid in your search for funding opportunities as well as to see an expansive list of specific postdoctoral fellowship opportunities. Below is a list of NIH and NSF postdoctoral fellowships and career development awards with deadlines in the coming months:

NIH K-awards (career development/pathway to Independence awards): Next new applications deadlines: June 12th and October 12th 2016; Next resubmissions deadline: July 12th and November 12th 2016
<http://grants.nih.gov/training/careerdevelopmentawards.htm>

NSF Science, Technology, and Society Postdoctoral Fellowships (STS): Next deadline: August 3rd 2016
<https://www.fastlane.nsf.gov/servlet/fastlane.pdoc.DisplayProgramType>
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5324&org=SES&from=home

NIH F32 (postdoctoral fellowships): Next deadlines: August 8th 2015 and December 8th 2016
<http://grants.nih.gov/grants/guide/pa-files/PA-14-149.html>

NSF Astronomy and Astrophysics Postdoctoral Fellowships (AAPF): Next deadline: October 12th 2016
<https://www.fastlane.nsf.gov/servlet/fastlane.pdoc.DisplayProgramType>
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5291&org=MPS&from=home

NSF Mathematical Sciences Postdoctoral Research Fellowships (MSPRF): Next deadline: October 19th 2016
<https://www.fastlane.nsf.gov/servlet/fastlane.pdoc.DisplayProgramType>
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5301&org=MPS&from=home

NSF Social, Behavioral and Economic Sciences Postdoctoral Fellowships (SPRF): Next deadline: October 31st 2016
<https://www.fastlane.nsf.gov/servlet/fastlane.pdoc.DisplayProgramType>
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=504810&org=SMA&from=home

NSF Postdoctoral Research Fellowships in Biology (PRFB): Next deadline: November 1st 2016
<https://www.fastlane.nsf.gov/servlet/fastlane.pdoc.DisplayProgramType>
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503622&org=DBI&from=home

NSF Earth Sciences Postdoctoral Fellowships (EAR-PF): Next deadline: January 10th 2017
<https://www.fastlane.nsf.gov/servlet/fastlane.pdoc.DisplayProgramType>
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503144

Rory Flinn

Future Academic/Professional Meetings

StartupColumbia Festival

Columbia Entrepreneurship, Columbia Entrepreneurs Organization (CEO), and Columbia Organization for Rising Entrepreneurs (CORE)

Friday, April 29, 2016 from 9:45 AM to 5:00 PM (EDT)

Low Library @ Columbia University, (116th St & Broadway), New York, NY 10027

<https://www.eventbrite.com/e/startupcolumbia-festival-tickets-21008343521>

At the New York Academy of Sciences (NYAS)

Where Do Physics and Philosophy Intersect?

Featuring: David Z. Albert (Columbia University) and Jim Holt (Why Does the World Exist? An Existential Detective Story);

Moderator: Kate Becker (The Visible Universe)

Monday, April 25, 2016 | 7:00 PM - 8:30 PM

<http://www.nyas.org/Events/Detail.aspx?cid=3f1a7cb3-c83b-457a-9492-73203e147a15>

Solute Carrier Proteins: Unlocking the Gene-Family for Effective Therapies

Tuesday, April 26, 2016 | 9:00 AM - 5:00 PM

<http://www.nyas.org/Events/Detail.aspx?cid=4a42181e-2f43-4fa9-bb24-d171afce8497>

Science and Art in China (.. and the Influence of Western Geometry and Mathematical Perspective on Early Qing Dynasty Mathematicians and Artists)

Wednesday, April 27, 2016 | 6:00 PM - 8:00 PM

<http://www.nyas.org/Events/Detail.aspx?cid=58c51129-6f36-41d9-8b18-34fa0e5b9dc8>

Epigenetics: Cancer and Beyond

Thursday, April 28, 2016 | 9:00 AM - 5:00 PM

<http://www.nyas.org/Events/Detail.aspx?cid=0b5462e9-c962-4082-9915-a1ebf4962be4>

Complexity: A Science of the Future?

Monday, May 9, 2016 | 7:00 PM - 8:30 PM

<http://www.nyas.org/Events/Detail.aspx?cid=858b6ce6-7e6b-4067-b877-aff7245bb8da>

Food-Microbiome Interaction: Implications for Health & Disease

May 10 - 12, 2016 | United Kingdom

<http://www.nyas.org/Events/Detail.aspx?cid=bdd6da88-6268-4125-a988-f7e2503be139>

MGSN Career Fair 2016

Saturday, May 14, 2016 | 10:00 AM - 4:00 PM

<http://www.nyas.org/Events/Detail.aspx?cid=92833e18-ec07-4761-b763-a71ee8e4c471>

More NYAS events (<http://www.nyas.org/Events/Default.aspx>)

Exposing Vulnerabilities in Cancer Metabolism: New Discoveries

Monday, May 16, 2016 | 9:00 AM - 5:00 PM

The Addicted Brain and New Treatment Frontiers: Sixth Annual Aspen Brain Forum: The Rise of Human Consciousness

May 18 - 20, 2016

Chemical Biology Discussion Group Year-End Symposium

Wednesday, May 25, 2016 | 10:00 AM - 4:00 PM

HIV 2016: HIV and Non-Communicable Diseases — Opportunities and Challenges

Thursday, May 26, 2016 | 8:00 AM - 6:00 PM

Other events also here:

NewYork Postdocs:

<https://sites.google.com/site/newyorkpostdocs/>

National Postdoctoral Association:

<http://www.nationalpostdoc.org/>

Mulugeta



L to R: Yalda, Sitharam, Thomas, Rory, Mulugeta and Jennifer

This is the third edition of Columbia University's very own Postdoc Newsletter! We are very excited to do this again, to bring you news, stories and info from our campuses and beyond. We thank you for accepting our previous issues with open arms, for all your suggestions and encouragement, and we look forward to more. We the editors are five postdocs: Yalda Moayed, Sitharam Ramaswami, Thomas Postler, Mulugeta Semework Abebe and Jennifer L. Robinson, along with Rory Flinn, the Director of Office of Postdoctoral Affairs.

We welcome any level of involvement, from sending us your favorite quote, writing a novella about the hardships in the life of a postdoc, to reviewing the Cell/Science/Nature paper you just published.

If you would like to get on-board, shoot us an e-mail at cupostdocnewsletter@gmail.com

Events in NYC

Mulugeta

Sports

Soccer: NYC World Cup

<http://www.meetup.com/NYCWorldCup/>

NYC marathon:

<http://www.tcsnycmarathon.org/>

For other sports listings in NYC, visit:

<http://www.nycgo.com/sports>

Science/Arts

World Science Festival

<http://www.worldsciencefestival.com/>

USA Science & Engineering Festival

<http://www.usasciencefestival.org/>

For other events/festivals, visit:

<http://www.timeout.com/newyork/things-to-do/events-festivals>

Exhibits and Shows

NYC Broadway shows

<http://www.broadway.com/>

Javits Center events

<http://www.javitscenter.com/events/events/>

Museum exhibitions

<http://www.timeout.com/newyork/attractions/best-museum-exhibitions-in-nyc>

